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The Impact of Export on the Economic Growth and Development of the Nigerian Economy (1980-1989)

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1.0 INTRODUCTION

Nigeria today depends largely on imported products for the survival of her economy. It is a shame and a matter of urgent attention that this nation imports refined petroleum for domestic use. A trend analysis shows that the external sector of Nigeria's economy has, since independence in 1960 been unstable, largely reflecting the persistent high domestic demand for foreign goods and services against the backdrop of inadequate foreign exchange earnings. For example, between 1960 and 1967 Nigeria experienced balanced of payment deficit except in 1965 when there was trade surplus. In the subsequent years 1968-1975 (except 1972) the overall balance reversed into surpluses owing to the impositions of restrictions on some external transactions. The surplus in 1974 was particularly remarkable because it reflected the peak performance of Nigeria's balance of payments, occasioned by astronomical increases in the export price of crude oil. However, deficits re-occurred between 1976 and 1978 followed by surpluses in 1970 and 1980. The balance of payments witnessed an improvement between 1981 and 1986. But from 1986 to 1998 the balance of payment position has worsened. Against the backdrop of this trend analysis, one is forced to ask some vital questions: how does foreign trade affect the structure and character of less developed countries (LDCs) economic growth? This is the centre of the controversy whether trade is an engine of growth. Can less developed countries on their own determine how much they trade? In the light of past experience and prospective judgment, should less developed countries adopt an outward looking (free trade, expanded flow of capital and human resources ideals and technology etc) or an inward looking (protection in the interest of self-reliance). These questions are relevant and critical especially when posed in the context of the structure, pattern, and development aspiration of the developing countries. For the past decades, the Nigeria economy has been retrogressing. This ugly phenomenon has constituted a matter of serious concern to one and all.

Consequently, relevant authorities have been using monetary/fiscal tools like tariff structure, credit and exchange control, taxation, regulation of interests rates, quota etc to remedy the ills in the Nigerian economy. it is against this background that this study focuses on the tariff structure amongst others to gauge it effects on the Nigerian economy since 1980.

2.0 LITERATURE REVIEW

The theory of foreign trade is one of the oldest branches of economics and it dates as far back to the 16th century. In the 19th century, trade was used as a device for optimum allocation of stock of recourses. Trade was portrayed as the "engine of growth". So far, Nigeria has benefited in no small measure from her engagement in international trade. The country's stock of goods for consumption has been enlarged. Scarce resources needed to achieve rapid growth and development is being made available through the process of foreign trade. Trade in Nigeria has promoted greater global and domestic equality and equalizing factor prices, raising real incomes and providing an efficient use of the country's resources endowment. In fact foreign trade is more important to less developed countries than advanced nations of the world. The advanced industrial countries are able as a group to maintain an average annual rate of growth of merchandise export above the world average, while under-developed countries (excluding the capital surplus oil exporters) achieve a lower growth rate (Aboyade o. 1983).

While developed nations enjoy advantages of export promotion policies, developing countries suffer largely from the protectionist policies of developed countries. Increased restrictive policies on imports in the industrialized countries have continued to hamper developing countries efforts at product specialization in accordance with their specialization advantage. Increased protectionism of industrialized countries has a direct impact on the export earnings of less developed countries by lowering the effective demand for their export and thereby exerting downward pressure on prices and export volumes. Tariffs escalation on productions of export interest to developing countries remains a problem and the incidence of non-tariff barriers is frequently high in sectors where developing countries have a comparative advantage. All these have given rise to the export pessimism hypothesis which expresses doubt about potential of manufacturers from additional newly industrialized countries (Obadan 1993). Although free trade has been canvassed by many economists as an engine of growth, it has however been noticed that free trade is not a useful concept to employ by developing countries which are witnessing rapid structural changes. Free trade is claimed to work to the disadvantage of LDCs because of the nature of their products e.g. agricultural product with attendant low elasticity's. The

doctrine of comparative advantage which is related with free trade could lead to excessive specialization on a narrow range of products, putting the economy at the mercy of foreign influences. The possibility resulting from specialization may be damaging to development. Prior to 1960, Nigeria's export trade was largely dominated by non-oil product such as groundnut, palm produce, cocoa, rubber, cotton etc. other non-oil exports of significant value were tin-ore, columbite, cattle and hides and skin. About 66 percent of total export was accounted for by these commodities.

However, since the mid 1970s crude's oil has become the major foreign exchange and the export virtually shifted to the oil sector at the expense of the non-oil sector. In 1986, the nation experienced a crises situation dramatizing the effectiveness of hitherto prevailing policy of import substitution industrialization. This strategy which was by definition inward looking conferred substantial protection on import competing manufacturing activities by imposing relatively high import duties on finished product and very low or no import on industrial raw materials and intermediate capital input.

NIGERIA'S TRADE POLICY

Over the years the thrust of policy has been to limit imports to available foreign exchange resources while putting in place supply side measures to boost exports. This was intended to strengthen the current account and ultimately the balance of payments. The trade policy between 1976 and 1985 witnessed policy inconsistency. Controls were initially tightened, liberalized and tightened again as dictated by the level of external reserve in line with developments in the economy. Controls were tightened progressively between 1976 and 1999. But in 1980, a policy of massive trade and exchange liberalization was adopted owing to the comfortable stock of foreign exchange reserves in the proceeding year. As a result of the disastrous consequences of this policy which led to a dramatic decline in foreign exchange reserves staring from the second half of 1981, the emergency powers (temporary provision) Act of April 1982 was enacted. Under the act, more items became subjected to pre-shipment inspection and the list of items on open general license was reduced, control measures were progressively intensified up to July 1986.

The liberalized trade regime commented in July 1986 with the introduction of the Structural Adjustment Programme (SAP) which was aimed at the reinvigoration of the economy to achieve sustainable internal and external balances. The liberalization of trade and exchange procedures effectively commenced with the abolition of import licensing and introduction of foreign currency domiciliary accounts in which exporters could retain their export proceeds and use them to finance eligible imports. The second tier foreign exchange market (SFEM) was introduced in 1986 for managing the exchange rate and allocating foreign exchange resources under a market based system. The commodity boards were also abolished and exporters were free to market their products directly. The list of banned import was reduced to 13 items as at the end of 1959, while foreign exchange availability became the major determinant of the rate of importation. In the same period only 4 items exports were banned. Other incentives designed to promote exports include the introduction of a duty drawback scheme, manufacture in bond scheme, establishment of the Nigerian export-import Bank (MEXIM) to provide export finance facilities and the creation of the Calabar export processing zone (EPZ). The duty drawback scheme is designed to render support for manufacturers by allowing importers make claims on duty paid on imported inputs (raw material) used for the production of export goods. The manufacture-in-bond scheme introduced in 1991 allows the clearance exports production without payment of import duty.

However, this is done on the basis of a bond with a bank which guarantees that all end products are exported.

3.0 THEORETICAL FRAMEWORK AND MODEL SPECIFICATION

As indicated earlier, the problem faced in this study is essentially that of examining the study sector of the Nigerian economy in the light of policy constrains and their implications for economic growth and development. Studies of the demand for export of any country are essential for a number of reasons which are particularly relevant in problems of international economic policy. In this connection, the problem of the stability of exchange rates first comes to mind. This is concerned with whether or not a country, more specifically an underdeveloped primary producing country, can improve its balance of payments position either by export diversification or by devaluation or by both. There is the problem of which commercial policy a country could adopt. There is the issue of improving and or increasing government revenue and foreign exchange earnings respectively. The demand for Nigerian exports is affected by a host of variables other than their respective prices or the terms of trade. These variables include, the Gross National Product (GNP), the price of exports total banking sector credit to the export sector, exchange rate, the degree of openness of the economy amongst others.

THE EQUATION OF THE MODEL

Based on the above theoretical framework we can express the export demand model equation as

$Q_E = F(P_e Y_t X_r$ OPEN, TBC, T, $Z_{it})$

Where
Q_e = quantity of export
P_e = price of export
Y_t = GNP (a proxy variable for development of the economy)
X_r = exchange rate
OPEN = openness index use to capture trade liberalization
TBC = total banking sector credit to the export sector
T = time trend
Z_{it} = other variables to be specified or held constant
U_t = error term
The model expressed in log linear farm to enable us express the coefficient as elasticities is:
$\text{Ln } Q_e = \beta_0 + \beta_1 \text{Ln} P_e + \beta_2 \text{Ln} Y_t + \beta_3 \text{Ln} Xet + \beta_4 \text{ in OPEN X } \beta_5 \text{ Ln TBC} + U_t$
Where
B_0 = intercept
$B_1 - \beta_2$ are the various elasticities of export with respect to price, GNP, exchange rate, openness and total banking sector credit.
U_t is stochastic disturbance term
A prior expectation

$$\frac{\partial Q_e}{\partial P_e} > 0 \beta_1 > 0$$

$$\frac{\partial Q_e}{\partial Y} > 0 \beta_2 > 0$$

$$\frac{\partial Q_e}{\partial Xr} > 0 \beta_3 > 0$$

$$\frac{\partial Q_e}{\partial OPEN} > 0 \beta_4 > 0$$

$$\frac{\partial Q_e}{\partial TBC} > 0 \beta_5 > 0$$

Where
β_0 = autonomous export (intercept)
β_1 = coefficient measuring impact of price
β_2 = coefficient measuring impact of GNP
β_3 = coefficient measuring impact of exchange rate
β_4 = coefficient measuring impact of liberalization of trade
β_5 = coefficient measuring impact of total banking sector credit to finance export.

MODEL ESTIMATION TECHNIQUES AND DATA SOURCE

The primary concern of this section is to discuss the question of how the true estimates of the relevant parameters of the export demand relations of the foreign sector can be obtained. The study basically being that of time series is estimated by the use of ordinary least squares regression technique (OLS). The data used for the study cover a period of 1980-1998 obtained for the following sources.

i. The central bank of Nigeria statistical bulletin several issues and

ii. Federal office of statistics.

4.0 PRESENTATION OF DATA AND INTERPRETATION OF REGRESSION RESULTS

The data used in this study are source from the central bank of Nigeria (CBN) and covers the period of study 1980-1998. They are presented in a tabular form below.

Year	GDP N Billion	Total credit to agric sector million	Total exports million	Value export N million	Average exchange rate parallel market million
1980	96.20	462.2	14186.7	n.9	0.9009
1981	70.40	619.2	11023.3	113.2	0.9259
1982	70.20	826.7	8206.4	198.6	1.1364
1983	66.40	994.9	7502.5	431.2	1.8182
1984	63.00	1131.4	9068.0	288.8	3.2500
1985	68.90	1430.4	11702.8	192.1	3.7900
1986	71.1	2042.1	8920.5	407.4	4.1700
1987	70.7	2654.8	30360.5	937.4	5.5500
1988	77.7	3643.2	31192.8	1780	6.0550
1989	83.5	4285.6	58061.2	1726.8	10.54450
1990	90.3	5275.0	109866.1	2857.0	9.6700
1991	94.6	6354.5	121533.7	3425.0	13.4000
1992	97.4	8574.5	205611.7	3054.9	20.3000
1993	100	1365.0	218,770.1	4337.3	36.2298
1994	101.3	21024.7	216059.2	3818.8	59.2298
1995	101.3	29347.7	960661.4	15512.0	83.5422
1996	107.0	37635.4	1309543.5	18020.4	83.0858
1997	110.4	30733.2	12241662.7	19826.1	80.6200
1998	113.0	33600.9	751856.7	n.9	87.8700

n. 9 (not available).

DATA PRESENTATION AND REGRESSION ANALYSIS

The regression of total exports and GDP at 1984 factor cost N billion. The regression is;

$Q_e = \beta_0 \beta_1 Y + U_t$ 1

$Yt_=$ GDP at time t, u = error term.

Year	Total exports N billion Y i.e Q_e	GDO N billion X (Y_e)	Y -	X -	(Y -)	(Y -)^2	(X -)^2
1980	0.014	96.2	-0226	9.06	-2.410	0.0708	82.08
1981	0.011	70.4	-0.269	-16.74	4.503	0.0724	280.23
1982	0.008	70.2	-0.273	-16.94	4.608	0.074	286.96
1983	0.007	66.4	-0.273	-20.74	5.662	0.0745	430.15
1984	0.009	63.0	-0.271	-24.14	6.542	0.0734	582.74
1985	0.0117	68.9	-0.268	-18.24	4.888	0.072	332.70
1986	0.0089	71.1	-0.2711	-16.04	4.3480	0.0735	257.28
1987	0.030	70.7	-0.25	-16.44	4.11	0.0625	270.27
1988	0.031	77.7	-0.249	-9.44	2.351	0.062	89.11
1989	0.058	83.5	-0.222	-3.64	0.808	0.0493	13.25
1990	0.109	90.3	-0.171	3.64	-0.540	0.0292	99.71
1991	0.121	94.6	-0.159	3.16	-1.186	0.0253	55.65
1992	0.205	97.4	-0.075	7.46	-0.770	0.006	105.27
1993	0.218	100.0	-0.062	10.26	-0.797	0.004	165.38
1994	0.216	101.3	-0.064	14.16	-0.906	0.0041	200.51
1995	0.960	103.5	0.68	16.36	11.125	0.462	267.65
1996	1.309	107.0	1.029	19.86	20.436	1.059	394.42
1997	1.241	110.4	0.961	23.26	22.353	0.924	541.03
1998	0.751	113.0	0.471	25.86	12.180 97.305	0.222 3.4200	668.74 5123.13

$\bar{y} = \frac{\Sigma y}{N} = \frac{5.3186}{19} = 0.28$

$X = \frac{\Sigma x}{N} = \frac{1655.6}{19} = 87.14$

$\Sigma (Y - \bar{y})(X - \bar{x}) = 97.305$

$\Sigma (Y - \bar{y})^2 = 3.4200$

$\Sigma (X - \bar{x})^2 = 5123.13$

$Q_e = \beta_0 + \beta_1 Y_t + U_t$

$\beta_1 = \frac{\Sigma(Y - \bar{y})(X - \bar{x})}{(X - \bar{x})^2} = \frac{97.305}{5123.13} \quad 0.02$

$\beta_0 = \bar{y} - \beta(\bar{x})$

$\beta_0 = 0.28 - 0.02\ (87.14)$

$\beta_0 = 0.28 - 1.7 = 1.46$

$\beta_0 = -1.46$

The regression line is

$Q_e = -1.46 + 0.02\ Y_t + U_t$

The coefficient of determination, R^2

$$R^2 = a_1 \frac{\Sigma(X - \bar{x})(Y - \bar{y})}{\Sigma(Y - \bar{y})^2} = 0.07\ (46.155) \quad 3.4200$$

$$R^2 = \frac{1.9461}{3.4200} = 0.57$$

T-test

$$T \text{ observed} = \frac{b^n}{Sb^n}$$

$$\text{But } Sb = \sqrt{\frac{\Sigma\, ei^2}{n-2\Sigma(X - \bar{x})^2}}$$

$$\Sigma ei2 = \Sigma(Y - \bar{y})^2 - b\,\Sigma(X - \bar{x})(Y - \bar{y})$$
$$= 3.4200 - 0.02\ (97.305)$$
$$= 3.4200 - 1.9461$$
$$= 1.47$$

$$n-2\Sigma(X - \bar{x})^2 = 19 - 2\ (5123.13)$$
$$= 17\ (5123.13)$$
$$= 87093.21$$

$$Sb = \sqrt{\frac{1.47}{87093.21}} = \sqrt{0.00016878}$$

$Sb = 0.004$

$t = b^n/sb^n \quad = 0.02/0.004 \quad = 5$

Compare t observed with t critical

NB; degree of freedom = 19-1 = 18

T observed = 5

T critical at 5% (t_{crit} 0.05) = 2.88

Since t observed > t crit, i.e. 5>2.88

The value of R^2 is significant in explaining Q (variation in Q_e)

F test

$R = R^2/1-R^2$ x N-1/K-1

F = 0.57/1-0.57 x 19-1/2-1 = 0.57/043 x 18/1 = 23.9

F_{crit} 0.05 = 3.55

Fob > F_{crit} since 23.9 > 3.55

Therefore the value of Y_t is significant in explaining Qe

The second regression equation is $Q_e = 9_0 + 9_1 P_e + U$ …….(2)

That is a regression of total exports and price of exports at 1984 factor cost in N billion

Q_e = total exports

P_e = price of export

9_1 = parameter to be estimated

$a_1 = a_1 > 0_1U$ = stochastic term

Year	Total export N billion	Price exports N billion	Y -	X -	(y -) (x -)	(y -)^2	(x -)^2
1980	0.014	N.A	-0.266	-	-	0.0708	-
1981	0.011	0.113	-0.269	-3.76	1.011	0.0724	14.14
1982	0.008	0.199	-0.272	-3.671	0.999	0.074	13.48
1983	0.007	0.431	-0.273	-3.439	0.939	0.0745	11.83
1984	0.009	0.289	-0.271	-3.581	0.970	0.0734	12.82
1985	0.0117	0.192	-0.268	-3.678	0.086	0.072	13.53
1986	0.0089	0.407	-0.2711	-3.463	0.939	0.0735	11.99
1987	0.30	0.937	-0.25	-2.933	0.733	0.0625	8.60
1988	0.031	1.780	-0.249	-2.09	0.520	0.062	4.37
1989	0.058	1.727	-0.222	-2.143	0.476	0.0493	4.59
1990	0.109	0.286	-0.171	-3.584	0.613	0.0292	12.85
1991	0.121	3.425	-0.159	0.445	0.071	0.0253	0.198
1992	0.205	3.055	-0.075	-0.815	0.061	0.006	0.0664
1993	0.218	3.437	-0.062	-0.433	0.027	0.004	0.187
1994	0.216	3.819	-0.064	-0.051	0.003	0.0041	0.003
1995	0.960	15.512	0.68	11.642	7.917	0.462	135.54
1996	1.309	18.02	1.029	14.15	14.560	1.059	200.22
1997	1.241	19.826	0.961	15.956	15.33	0.924	254.59
1998	0.741	N.A	0.471	-	- 46.155	0.222 3.4200	- 699.620

$\bar{y} = \Sigma Y/N = 5.3186/19 = 0.28$

$\bar{x} = \Sigma X/N = 73.455/19 = 3.87$

$\Sigma(Y - \bar{y})(X - \bar{x}) = 46.155$

$\Sigma(Y - \bar{y})^2 = 3.4200\ \Sigma(X - \bar{x})^2\ 699.602$

$Q_e\ 9_0 + a_1 P_e + U_t$

$$9_1 = \frac{\Sigma(y - \bar{y})(x - \bar{x})}{\Sigma (x - \bar{x})^2} = \frac{46.155}{699.602} = 0.07$$

$9_0 = y - a_1 (\bar{x})$
$9_0 = 0.28 - 0.07\ (3.87)$
$9_0 = 0.28 - 0.2709$
$9_0 = -0.009$

The regression line is

Q_e = -0.009 + 0.07 Pe x U

The coefficient of determination, R^2

$R^2 = a_1 \frac{\Sigma(x - \bar{x})(y - \bar{y})}{\Sigma(y - \bar{y})^2} = 0.07\ (46.155) \quad 3.4200$

$= \frac{3.23085}{3.4200} = 0.94$

R^2 0.94

T-test

T observed = b^n/Sb^n

But $Sb = \sqrt{\frac{\Sigma ei^2}{n-2\Sigma(x-\bar{x})^2}}$

But $\Sigma ei^2 = \Sigma(y-\bar{y})^2 - b\Sigma(x-\bar{x})(y-\bar{y})$

$= 3.4200 - 0.07(x-\bar{x})(y-\bar{y})$

$= 3.4200 - 3.23085$

$= 0.18915$

$n-2\Sigma(x-\bar{x})^2 = 19 - 2(5123.13)$

$= 17\ (699.602)$

$= 11893.234$

$Sb = \sqrt{\frac{0.18915}{0.1893.234}} = \sqrt{0.000015904}$

Sb = 0.004

$T = b^n/0.004 \quad = 0.07 = 17.5$

Compare t observed with t critical

NB: degree of freedom = 19-1=18

T observed = 17.5

T critical = 2.88

Since t observed is greater than t critical that is 17.5 > 2.88, the value of R^2 is significant in explaining Q_e (variation in Q_e)

F test

$F = R^2/1-R^2$ x N-1/K-1

F = 0.94/1-0.94 x 19-1/2-1 = 0.94/0.06 x 18/1 = 28.2

F critical 0.05 = 3.55

Since fob > fcrit the value of P_e is significant in explaining 23.9 > 3.55

Therefore the value of Yt is significant in explaining Q_e

The third regression equation is $Q_e = d_0 + d_1$ TBC x C ……(3)

Q_e = total exports d_0 d_1 (parameters to be estimated)

TBC_a = total banking credit to the agricultural sector as proxy to total banking credit to the export sector d_0 $d_1 > 0$

Year	Total export N billion	Price exports N billion	Y -	X -	(y -) (x -)	(y -)^2	(x -)^2
1980	0.014	0.462	-0.266	-12.33	2.208	0.0708	152.2
1981	0.011	0.619	-0.269	-12.18	3.276	0.0724	148.38
1982	0.008	0.826	-0.272	-11.97	3.256	0.074	143.38
1983	0.007	0.994	-0.273	-11.80	3.221	0.0745	139.38
1984	0.009	1.131	-0.271	-11.669	3.162	0.0734	136.17
1985	0.0117	1.43	-0.268	-11.37	3.047	0.072	129.28
1986	0.0089	2.042	-0.2711	-10.758	2.916	0.0735	115.73
1987	0.30	2.654	-0.25	-10.146	2.537	0.0625	102.94
1988	0.031	3.643	-0.249	-9.157	2.280	0.062	83.85
1989	0.058	4.285	-0.222	-8.515	1.890	0.0493	72.51
1990	0.109	5.275	-0.171	-7.525	1.287	0.0292	56.6
1991	0.121	6.354	-0.159	-6.446	1.025	0.0253	41.55
1992	0.205	8.574	-0.075	-4.226	0.317	0.006	17.86
1993	0.218	13.635	-0.062	0.835	0.052	0.004	0.697
1994	0.216	21.024	-0.064	8.224	0.526	0.0041	67.63
1995	0.960	29.347	0.68	16.547	11.252	0.462	273.80
1996	1.309	37.635	1.029	24.835	25.555	1.059	616.78
1997	1.241	30.733	0.961	17.234	17.234	0.924	321.59
1998	0.741	33.600	0.471	20.8	9.797 95.91	0.222 3.4200	432.64 3053.003

The coefficient of determinant R^2

$$R^2 = d_1 \frac{\Sigma(x-\bar{x})(y-\bar{y})}{\Sigma(y-\bar{y})^2} = \frac{0.03\ (95-91)}{4200}$$

$R^2 = 2.8773/3.4200 = 0.84$

T-test

T observed

$$= \frac{3.23085}{3.4200} = 0.94$$

R^2 0.94

But $Sb = \sqrt{\frac{\Sigma ei^2}{n-2\Sigma(x-\bar{x})^2}}$

But $\Sigma ei^2 = \Sigma(y-\bar{y})^2 - b\Sigma(x-\bar{x})(y-\bar{y})$
$= 3.4200 - 0.03(95.91)$
$= 3.4200 - 28773$
$= 0.5427$

$n-2\Sigma(x-\bar{x})^2 = 19 - 2(3053.003)$
$= 17\ (3053.003)$
$= 51901.051$

$Sb = 0.003$

$T = b^n/sb^n = 0.03/0.003 = 10$

F-test
$F = R^2/1-R^2$ x N-1/K-1
F = 0.84/1-0.84 x 19-1/2-1 = 0.84/0.16 x 18/1 = 94.5
F critical 0.05 = 3.55
Fob > fcrit since 943.55 therefore the value of TBC_a is significant in explaining systematic variation in Q_e

The fourth regression equation is Q_e total exports

X_1 (parameters to be estimated)

X_r = average exchange rate

U = error term

Year	Total export N billion	Price exports N billion	Y -	X -	(y -) (x -)	(y -)^2	(x -)^2
1980	0.014	0.0009	-0.266	-0.0261	0.00694	0.0708	0.00068
1981	0.011	0.00093	-0.269	-0.0267	0.00701	0.0724	0.00067
1982	0.008	0.00114	-0.272	-0.02586	0.00703	0.074	0.000668
1983	0.007	0.00182	-0.273	-0.02518	0.00687	0.0745	0.000634
1984	0.009	0.0033	-0.271	-0.0237	0.00642	0.0734	0.000561
1985	0.0117	0.000379	-0.268	-0.02321	0.006220	0.072	0.000539
1986	0.0089	0.0042	-0.2711	-0.0228	0.006181	0.0735	0.00052
1987	0.30	0.0056	-0.25	-0.0214	0.00535	0.0625	0.00046
1988	0.031	0.0061	-0.249	-0.0209	0.005204	0.062	0.000437
1989	0.058	0.0105	-0.222	-0.0165	0.00366	0.0493	0.000272
1990	0.109	0.00967	-0.171	-0.01733	0.00296	0.0292	0.0003
1991	0.121	0.0134	-0.159	-0.0136	0.00216	0.0253	0.000185
1992	0.205	0.0203	-0.075	-0.0067	0.000503	0.006	0.000045
1993	0.218	0.0362	-0.062	0.0092	0.00057	0.004	0.000085
1994	0.216	0.0598	-0.064	0.0328	0.02099	0.0041	0.00108
1995	0.960	0.0835	0.68	0.0561	-0.03842	0.462	-0.00319
1996	1.309	1.0831	1.029	0.0561	0.05773	1.059	0.00315
1997	1.241	0.0806	0.961	0.0536	0.05757	0.924	0.00289
1998	0.741	0.0878 3.4200	0.471	0.0608	0.0864 0.204388	0.222 3.4200	0.00369 0.0200036

$\bar{y} = \Sigma Y/N = 5.3186/19 = 0.28$

$\bar{x} = \Sigma X/N = 0.51265/19 = 0.027$

$\Sigma(Y - \bar{y})(X - \bar{x}) = 46.155$

$\Sigma(Y - \bar{y})^2 (X - \bar{x})^2 = 0.204388$

$\Sigma (y - \bar{y})^2 = 3.4200$

$\Sigma (x-\bar{x})^2 = 0.020036$

$Q_e = 9_0 + 9_1 X_r + U$ ……(4)

$a_1 = \frac{\Sigma(y-\bar{y})(x-\bar{x})}{\Sigma(x-\bar{x})^2} = \frac{0.204388}{0.020036} = 10.2$

$a_0 = y - a_1(\bar{x})$
$= 0.28 - 130.56$
$= -130.28 = -130.3$
The regression line is

$Q_e = -130.3 + 10.2 X_r \times U$

The coefficient of determination, R^2

$R^2 = 9 \frac{\Sigma(x - \bar{x})(y - \bar{y})}{\Sigma(y - \bar{y})^2} = 10.2 \frac{(0.204388)}{3.4200}$

$=0.61$
T-test
T observed $= b^n/Sb^n$
But sb $= E_{ei}^2$ n -2 $E(x-\bar{x})^2$
$\Sigma ei^2 = \Sigma(y-\bar{y})^2 - b\Sigma(x-\bar{x})(y-\bar{y})$
$= 3.4200 - 10.2(0.204388)$
$= 3.4200 - 2.085$
$= 1.335$
$n-2\Sigma(x-\bar{x})^2 = 19 - 2(0.020036)$
$017(0.020036)$
$=0.340612$
$=87093.21$

$Sb = \sqrt{\frac{1.335}{0.340612}} = \sqrt{3.91941564}$

$Sb = 1.98$
$Eb^n/Sb^n = 10.2/1.98 = 5.2$

Compare t observed with t critical

NB: degree of freedom = 19-1=18

T observed = 5.2

T critical = 2.88

Since t observed is greater than t critical the value of 0 + R^2 is significant in explaining variation in Q_e

F test

$F = R^2/1-R^2 \times N-1/K-1$

$F = 0.61/1-0.61 \times 19-1/2-1 = 0.61/18 \times 18/0.39 = 28.2$

F critical 0.05 = 3.55

Since fob > fcrit since 28.2 > 3.55

Therefore the value of X_r (exchange rate) is significant in explaining systematic variation in Q_e (total exports).

PRESENTATION OF REGRESSION RESULTS

Dependent variable is total exports (Q_e) independent variables are GDP (2) price of exports (P_e) total bank credit to export sector TBC, exchange rate (X_r)

Coefficient	Estimate	Standard error	R^2	9^{-1}	F – ratios
GDP (Y_e)	0.02	0.004	0.57	5-	239
Price of export (P_e)	0.07	0.004	0.94	17.5	282
TBC	0.03	0.003	0.84	10	94.5
Exchange rate (X_r)	10.2	1.98	0.61	5.2	28.2
				Average = 0.74	

ANALYSIS OF REGRESSION RESULTS

EQUATION 1

Equation 1 is a linear ordinary least square regression estimate which shows total export as a function of gross domestic GDP. The result shows that about 57% systematic variation of export is explained by variation of GDP. The slope of the regression line is 0.02 and it is positive which shows that there is a positive relationship between total exports and GDP. That is, if GDP increase by N1 billion total export will increase by N0.2 billion. The t-test and the f-test shows that the estimate is statistically significant at 5% level since $t_{ob} > t_{crit}$ 0.05 and $F_{ob} > F_{crit}$ 0.05. On the basis of spirit expectation, the SYN of the slope is positive and current.

Equation 2

Equation 2 is also an OLS regression estimate and it expresses total export as a function of export prices at 1984 factor cost. The slope of the regression line is 0.07 and is positive and current in accordance with prior expectation that an increase in the price of export will raise total exports. The regression shows that 94% systematic variation of export is used by exportation of price of export significant growth and expansion in export, there must be a stable macroeconomic and a relative growth in real GDP.

The robustness of the third regression equation shows that the banking sub-sector must continue to impact the export sector for sustainable growth and development to the Nigerian economy.

Exchange rate has positive impact on the export sector and therefore a realistic exchange of the naira is necessary for a visible sector.

5.0 SUMMARY, RECOMMENDATION AND CONCLUSION

SUMMARY

It is the objective of this study to examine the impact of exports on the economic growth and development of the Nigerian economy between the period of 1980-1998. In the review of related literature, exerts in the literature hold a firm view that advanced industrial nations of the world maintain a faster average annual rate of growth of merchandise exports compared to less developed countries (Aboyade O. 1983). They opine that increased protectionism of industrialized countries has a direct impact on the export earnings of less developed countries (LDCs) by lowering the effective demand for their export and thereby exerting downward pressure on prices and export volumes (Obadan 1993).

However, the various trade polices adopted by Nigeria have helped to boost the export sector thereby making it the engine of economic growth and development. More so, the regression analysis of this study shows that the explanatory variables are a good measure of variation and growth of total exports.

RECOMMENDATION

The following are the policies that are likely to enhance the growth of the economy via the export sector.

a. There should be diversification of production activities in the economy. Dominated by crude petroleum in detrimental to economic growth.

b. There should be an export credit and guarantee system (ECGS) to provide credit facilities for intra African trade. In addition, a regional and sub-regional system of tax and financials incentives for exports, payments and clearing easy access to investment and trade financing institution should be involved as a matter of urgency and priority.

c. There should be a significant reduction, if not elimination of all tariff and non tariff barriers, including quotas, prohibitions, foreign exchange control etc.

d. The export processing zone should be well funded to standardize export products to make them compete favourably in the international market.

CONCLUSION

In conclusion, growth in the export sector needs a complete overhaul of petroleum structure. In addition, because of such factors as shortage if capital, low level of technological know-how, shortage if trained personnel, poor infrastructure, institutional rigidities etc, joint production, information, transport and communications become a sine-qua-non.

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